

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An apparatus, comprising:

a blob identifier that identifies one or more blobs in image data;

a blob mapper that assigns a color index to each of one or more blobs based on a color property of each of the blobs;

a blob clusterer that assigns the blobs to one or more binary foreground planes and a grayscale background plane based on the color index of each of the blobs to generate N-layer image data;

a blob identification module to maintain a global table of blobs that are no longer active and to identify inner ~~blobs~~blobs;

a blob analyzing module to analyze the inner blobs to determine if they represent background data, wherein the image data of the inner blobs that represent background data are merged into the grayscale background plane and inner blobs that do not represent background data are maintained as valid blobs; and

data of the one or more assigned binary foreground planes and the grayscale background plane are compressed by applying separate compression algorithms to each binary foreground plane data and grayscale background plane data.

2. (Original) The apparatus of claim 1, wherein

the blob clusterer separates blobs having a same color index into one or more proximity groups based on a predetermined blob separation distance, and then assigns each of the proximity groups to a separate foreground plane, a size of each of the foreground planes

being set based on spatial characteristics of pixels of blobs assigned to each of the foreground planes.

3. (Original) The apparatus of claim 1, wherein the blob clusterer assigns to a background plane one or more portions of the image data that are not assigned into any foreground plane.

4. (Previously Presented) The apparatus of claim 1, wherein the blob mapper assigns an identical color index to each of the one or more blobs, if a difference between color properties of the blobs is within a predetermined tolerance.

5. (Original) A xerographic marking device incorporating the apparatus of claim 1.

6. (Original) A marking device incorporating the apparatus of claim 1.

7. (Original) A digital photocopier incorporating the apparatus of claim 1.

8. (Currently Amended) A method, comprising:
identifying one or more blobs in image data;
assigning a color index to each of one or more blobs based on a color property of each of the blobs;
assigning the blobs to one or more binary foreground planes and a grayscale background plane based on the color index of each of the blobs to generate N-layer image data;
maintaining a global table of blobs that are no longer active;
identifying inner blobs, wherein image data of the inner blobs that represent background data are merged into the grayscale background plane and inner blobs that do not represent background data are maintained as valid blobs; and

compressing data of the one or more assigned binary foreground planes and the grayscale background plane by applying separate compression algorithms to each binary foreground plane data and grayscale background plane data.

9. (Original) The method of claim 8, further comprising:

separating blobs having a same color index into one or more proximity groups based on a predetermined blob separation distance, and then assigning each of the proximity groups to a separate foreground plane.

10. (Original) The method of claim 8, further comprising:

setting a size of each of the foreground planes based on spatial characteristics of pixels of blobs assigned to each of the foreground planes.

11. (Original) The method of claim 8, further comprising:

assigning to a background plane one or more portions of the image data that is not assigned into any foreground plane.

12. (Original) The method of claim 8, further comprising:

assigning an identical color index to each of the one or more blobs, if a difference between color properties of the blobs are within a predetermined tolerance.

13. (Currently Amended) A storage medium storing a set of program instructions executable on a data processing device, the set of program instructions comprising:

instructions for identifying one or more blobs in image data;

instructions for assigning a color index to each of one or more blobs based on a color property of each of the blobs to generate N-layer image data;

instructions for maintaining a global table of blobs that are no longer active;

and

instructions for assigning the blobs to one or more binary foreground planes and a grayscale background plane based on the color index of each of the blobs;

instructions for identifying inner blobs, wherein the image data of the inner blobs that represent background data are merged into the grayscale background plane and inner blobs that do not represent background data are maintained as valid blobs; and

instructions for compressing data of the one or more assigned binary foreground planes and the grayscale background plane by applying separate compression algorithms to each binary foreground plane data and grayscale foreground plane data.

14. (Original) The storage medium of claim 13, further comprising:

instructions for separating blobs having a same color index into one or more proximity groups based on a predetermined blob separation distance, and then assigning each of the proximity groups to a separate foreground plane; and

instructions for setting a size of each of the foreground planes based on spatial characteristics of pixels of blobs assigned to each of the foreground planes.

15. (Original) The storage medium of claim 13, further comprising:

instructions for assigning an identical color index to each of the one or more blobs, if a difference between color properties of the blobs are within a predetermined tolerance.

16. (Original) The storage medium of claim 13, further comprising:

instructions for assigning to a background plane one or more portions of the image data that is not assigned into any foreground plane.

17. (Currently Amended) An apparatus, comprising:

means for identifying one or more blobs in image data;

means for assigning a color index to each of one or more blobs based on a color property of each of the blobs;

means for assigning the blobs to one or more binary foreground planes and a grayscale background plane based on the color index of each of the blobs to generate N-layer image data;

means for maintaining a global table of blobs that are no longer active;

means for identifying inner blobs, wherein the image data of the inner blobs that represent background data are merged into the grayscale background plane and inner blobs that do not represent background data are maintained as valid blobs; and

means for compressing data of the one or more assigned binary foreground planes and the grayscale background plane by applying separate compression algorithms to each binary foreground plane data and grayscale background plane data.

18. (Original) The apparatus of claim 17, further comprising:

means for separating blobs having a same color index into one or more proximity groups based on a predetermined blob separation distance, and then assigning each of the proximity groups to a separate foreground plane; and

means for setting a size of each of the foreground planes based on spatial characteristics of pixels of blobs assigned to each of the foreground planes.

19. (Original) The apparatus of claim 17, further comprising:

means for assigning an identical color index to each of the one or more blobs, if a difference between color properties of the blobs are within a predetermined tolerance.

20. (Original) The apparatus of claim 17, further comprising:

means for assigning to a background plane one or more portions of the image data that is not assigned into any foreground plane.

21. (Previously Presented) The method of claim 8, further comprising creating a color tree from the assigned blobs.

22. (Previously Presented) The apparatus of claim 1, wherein the blob identification module merges two or more previously separated blobs into a single blob if the previously separated blobs become connected and the previously separated blobs agree in color.